# Collaborative Relationships for Research, Development & Demonstration

AGENCY ANNUAL REPORT ON FEDERAL LABORATORY

TECHNOLOGY TRANSFER -- In Response to the Technology Transfer

Commercialization Act of 2000 (P.L. 106-404)

#### ■ Collaborative Relationships for Research & Development

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• CRADAs, total active in the FY <sup>(1)</sup>	0	0	1	1	1	1
- New, executed in the FY			1	0	0	1
<ul> <li>Traditional CRADAs,<sup>(2)</sup> total active in the FY</li> </ul>			1	1	1	1
- New, executed in the FY				0	0	1
<ul> <li>Non-traditional CRADAs,<sup>(3)</sup> total active in FY</li> </ul>						0
- New, executed in the FY						0
Other collaborative R&D relationships	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• (specify as relevant), total active in the FY	3579	3987	4025	3492	2666	2463
- New, executed in the FY						1056
-New JPL Task Orders	31	34	28	31	17	
- Space Act Agreement total active in FY						860
-New Space Act Agreements	274	271	302	353	306	262
-New Software Usage Agreements	2011	1565	1253	881	598	794

CRADA = Cooperative Research and Development Agreement

- (1) "Active" = legally in force at any time during the FY. "Total active" is comprehensive of all agreements executed under CRADA authority (15 USC 3710a).
- (2) CRADAs involving collaborative research and development by a federal laboratory and non-federal partners.
- (3) CRADAs used for special purposes -- such as, material transfer or technical assistance that may result in protected information

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

■ Invention Disclosure and Patenting

= invention Discussive and I attending						
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• New inventions disclosed in the FY <sup>(1)</sup>	1485	1612	1678	1705	1268	1084
• Patent applications filed in the FY <sup>(2)</sup>	231	207	202	196	105	110
• Patents issued in the FY	155	189	133	144	93	112

- (1) Inventions arising at the federal lab.
- (2) Tally includes: U.S. patent applications, foreign patent applications filed on cases for which no U.S. application was filed, divisional applications, and continuation-in-part applications. Excludes: provisional, continuation,

duplicate foreign, and PCT applications.

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#### ■ Licensing

#### **Profile of Active Licenses**

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• All licenses, number total active in the FY <sup>(1)</sup>	521	861	1338	1675	1883	2296
New, executed in the FY	270	423	505	375	261	307
• Invention licenses, total active in the FY	312	338	441	477	461	457
<sup>o</sup> New, executed in the FY	71	107	129	73	28	26
- Patent licenses, (2) total active in FY	312	338	441	477	461	457
° New, executed in the FY	71	107	129	73	28	26
- Material transfer (inventions), tot active in FY	0	0	0	0	0	0
<sup>o</sup> New, executed in the FY	0	0	0	0	0	0
- Other invention licenses, total active in FY	0	0	0	0	0	0
New, executed in the FY	0	0	0	0	0	0
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
Other IP licenses, total active in the FY	209	523	897	1198	1422	1839
<ul> <li>New, executed in the FY</li> </ul>	199	316	376	302	233	281
- Copyright licenses (fee bearing)	13	49	50	72	121	199
<ul> <li>New, executed in the FY</li> </ul>	3	38	1	22	54	60
- Material transfer (non-inv.), total active in FY	0	0	0	0	0	0
<sup>o</sup> New, executed in the FY	0	0	0	0	0	0
- Other (3)	196	474	847	1126	1301	1640
			+			221
New, executed in the FY	196	278	375	280	179	221

Multiple inventions in a single license are counted as one license. Licenses that include both patents and copyrights

(I.e., hybrid licenses) are reported as patent licenses -- and not included in the count of copyright licenses.

- (1) "Active" = legally in force at any time during the FY.
- (2) Patent license tally includes patent applications which are licensed.
- (3) Open Channel-web and Noncommercial software licenses

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Profile of Active Licenses (cont.)

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• All income bearing licenses, number	203	225	235	244	236	248
• Exclusive	106	103	103	106	106	112
Partially exclusive	15	22	26	28	24	25

Non-exclusive	82	100	106	110	106	111
• Invention licenses, income bearing	201	223	233	242	234	246
Exclusive	105	102	102	105	105	111
Partially exclusive	15	22	26	28	24	25
Non-exclusive	81	99	105	109	105	110
- Patent licenses, (1) income bearing	201	223	233	242	234	246
□ Exclusive	105	102	102	105	105	111
Partially exclusive	15	22	26	28	24	25
Non-exclusive	81	99	105	109	105	110
Other IP licenses, income bearing	2	2	2	2	2	2
□ Exclusive	1	1	1	1	1	1
Partially exclusive	0	0	0	0	0	0
Non-exclusive	1	1	1	1	1	1
- Copyright licenses (fee bearing)	2	2	2	2	2	2
• Exclusive	1	1	1	1	1	1
Partially exclusive	0	0	0	0	0	0
Non-exclusive	1	1	1	1	1	1
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• All royalty bearing licenses, (2) number						
• Invention licenses, royalty bearing	203	225	236	247	239	246
- Patent licenses, (1) royalty bearing	201	223	233	242	234	246
		1 .			_	-
<ul> <li>Other IP licenses, royalty bearing</li> </ul>	2	2	3	5	5	5

In general, license income can result from various sources: license issue fees, earned royalties, minimum annual royalties, paid-up license fees, and reimbursement for full-cost recovery of goods and services provided by the lab to the licensee including patent costs.

- (1) Patent license tally includes patent applications which are licensed.
- (2) Note that royalties are one component of total license income.

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### (NOTES ON TABLE PREPARATION:

To keep the proliferation of data calls down, the only license sub-classifications included are patent licenses and copyright licenses. Nonetheless, the totals for Invention licenses and Other IP licenses are presumed to include all the license types identified in the previous table).

## **Licensing Management**

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• Number of licenses						
• Invention licenses, total active in the FY	312	338	441	477	461	457
New, executed in the FY	71	107	129	73	28	26
• Elapsed execution time, (1) licenses granted in FY			<u> </u>			

<ul> <li>Invention licenses</li> </ul>						
average (months)	9.9	9.1	7.4	13.4	15	11.7
° minimum (months)	1.4	0.1	2.1	2	2.5	8.5
maximum (months)	38.8	33.6	18	51.3	51.7	14.9
- Patent licenses <sup>(2)</sup>						
average (months)	9.9	9.1	7.4	13.4	15	11.7
minimum (months)	1.4	0.1	2.1	2	2.5	8.5
maximum (months)	38.8	33.6	18	51.3	51.7	14.9
• Licenses terminated for cause, in the FY						
■ Invention licenses	20	19	24	20	6	8
- Patent licenses <sup>(2)</sup>	20	19	24	20	6	8

Data in this table (intentionally) addresses only invention licenses -- with patent licenses distinguished as a subclass.

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports (notes for years' reports. (notes for use if needed)

License Income						
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• Total income, all licenses active in FY (1)	\$2,799,26	\$3,124,16	¢2 02 4 9 5 9	¢4.97 <b>2.</b> 491	¢2.012.27 <i>(</i>	P2 204 765
• Invention licenses	\$1,694,26	\$3,035,58	\$3,934,858	\$4,862,481	\$2,912,376	\$2,394,765
- Patent licenses (2)	\$1,694,26	\$3,035,58	\$3,934,858	\$4,726,245	\$2,912,376	\$2,394,765
• Other IP licenses, total active in the FY	\$5,000	\$88,579	\$3,934,858 N/A	\$4,726,245 \$136,236	\$2,912,376 N/A	\$2,394,765 N/A
- Copyright licenses	\$5,000	\$88,579	N/A	\$136,236	N/A	N/A
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
• Total Earned Royalty Income (ERI) (3)	\$233,811	\$928,818	\$1,333,250	\$2,162,359	\$1,352,476	\$1,159,394
Median ERI	\$6,728	\$6,814	\$6,500	\$5,998	\$6,781	\$5,515
Minimum ERI	\$65	\$48	\$23	\$3	\$24	\$202
Maximum ERI	\$50,708	\$363,686	\$750,978	\$965,401	\$619,653	\$790,909
□ ERI from top 1% of licenses	N/A	N/A	N/A	N/A	N/A	N/A
<ul> <li>ERI from top 5% of licenses</li> </ul>	\$50,708	\$363,686	\$750,978	\$1,414,579	\$619,653	\$790,909
<ul> <li>ERI from top 20% of licenses</li> </ul>	\$126,742	\$773,253	\$1,178,807	\$1,908,267	\$1,167,225	\$1,033,986
• Invention licenses, total ERI	\$233,811	\$928,818	\$1,333,250	\$2,155,734	\$1,352,476	\$1,159,394
Median ERI	\$6,728	\$6,814	\$6,500	\$5,643	\$6,781	\$5,515
Minimum ERI	\$65	\$48	\$23	\$3	\$24	\$202
Maximum ERI	\$50,708	\$363,686	\$750,978	\$965,401	\$619,653	\$790,909
<ul> <li>ERI from top 1% of licenses</li> </ul>	N/A	N/A	N/A	N/A	N/A	N/A

<sup>(1)</sup> Date of license application to the date of license execution. (Date of license application is the date the lab formally acknowledges the written request for a license from a prospective licensee and agrees to enter into negotiations).

<sup>(2)</sup> Patent license tally includes patent applications which are licensed.

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<sup>o</sup> ERI from top 5% of licenses	\$50,708	\$363,686	\$750,978	\$1,414,579	\$619,653	\$790,909
<sup>o</sup> ERI from top 20% of licenses	\$126,742	\$773,253	\$1,178,807	\$1,908,267	\$1,167,225	\$1,033,986
- Patent licenses, <sup>(2)</sup> total ERI	\$233,811	\$928,818	\$1,333,250	\$2,155,734	\$1,352,476	\$1,159,394
∘ Median ERI	\$6,728	\$6,814	\$6,500	\$5,643	\$6,781	\$5,515
Minimum ERI	\$65	\$48	\$23	\$3	\$24	\$202
Maximum ERI	\$50,708	\$363,686	\$750,978	\$965,401	\$619,653	\$790,909
<ul> <li>ERI from top 1% of licenses</li> </ul>	N/A	N/A	N/A	N/A	N/A	N/A
<sup>o</sup> ERI from top 5% of licenses	\$50,708	\$363,686	\$750,978	\$1,414,579	\$619,653	\$790,909
<sup>o</sup> ERI from top 20% of licenses	\$126,742	\$773,253	\$1,178,807	\$1,908,267	\$1,167,225	\$1,033,986
Other IP licenses, total ERI	*	, , , , , ,	, , ,	7 9 2 3	, , ,	, , , ,
	N/A	N/A	N/A	\$6,625	N/A	N/A
Median ERI	N/A	N/A	N/A	\$6,625	N/A	N/A
Minimum ERI	N/A	N/A	N/A	\$6,625	N/A	N/A
Maximum ERI	N/A	N/A	N/A	\$6,625	N/A	N/A
□ ERI from top 1% of licenses	N/A	N/A	N/A	N/A	N/A	N/A
□ ERI from top 5% of licenses	N/A	N/A	N/A	N/A	N/A	N/A
□ ERI from top 20% of licenses						N/A
	N/A	N/A	N/A	N/A	N/A	
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
- Copyright licenses, total ERI						
M 1. EDI	N/A	N/A	N/A	\$6,625	N/A	N/A
Median ERI	N/A	N/A	N/A	\$6,625	N/A	N/A
Minimum ERI	N/A	N/A	N/A	\$6,625	N/A	N/A
Maximum ERI	N/A	N/A	N/A	\$6,625	N/A	N/A
<sup>o</sup> ERI from top 1% of licenses	N/A	N/A	N/A	N/A	N/A	N/A
<ul> <li>ERI from top 5% of licenses</li> </ul>	N/A	N/A	N/A	N/A	N/A	N/A
• ERI from top 20% of licenses	N/A	N/A	N/A	N/A	N/A	N/A

<sup>(1)</sup> Total income includes license issue fees, earned royalties, minimum annual royalties, paid-up license fees, and reimbursement for full-cost recovery of goods and services provided by the lab to the licensee including patent costs. Total for FY2003 includes \$1.1M for JPL not classifiable as Invention or Other IP

- (2) Patent license tally includes patent applications which are licensed.
- (3) "Earned royalty" = royalty based upon use of a licensed invention (usually, a percentage of sales or of units sold). Not a license issue fee or a minimum royalty.

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**Disposition of License Income** 

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
- O						
• Income distributed (1)						

<ul> <li>Invention licenses, total distributed</li> </ul>	\$1,056,049	\$2,164,305	\$1,922,433	\$1,203,632	\$1,163,521	\$501,134
- To inventors	\$646,682	\$1,110,071	\$768,411	\$716,913	\$615,797	\$292,550
-To other <sup>(2)</sup>	\$409,366	\$1,054,234	\$1,154,022	\$486,718	\$547,725	\$208,584
- Patent licenses, (3) total income distributed	\$1,056,049	\$2,164,305	\$1,922,433	\$1,203,632	\$1,163,521	\$501,134
- To inventors	\$646,682	\$1,110,071	\$768,411	\$716,913	\$615,797	\$292,550
-To other <sup>(2)</sup>	\$409,366	\$1,054,234	\$1,154,022	\$486,718	\$547,725	\$208,584

Data in this table (intentionally) addresses only invention licenses -- with patent licenses distinguished as a subclass.

- (1) Income includes royalties and other payments received during the FY.
- (2) Other recipients comprise the NASA Centers
- (3) Patent license tally includes patent applications which are licensed.

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